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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,194	09/16/2003	Chris Stolte	11311-005-999	7148

24341 7590 08/14/2007
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EXAMINER

FILIPCZYK, MARCIN R

ART UNIT	PAPER NUMBER
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2163

MAIL DATE	DELIVERY MODE
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08/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/667,194

Applicant(s)

STOLTE ET AL.

Examiner

Marc R. Filipczyk

Art Unit

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2007 and 13 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) 21,50 and 79 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20,22-49,51-78 and 80-90 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/30/07.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

This Action is responsive to Applicant's RCE request submitted on 7/13/2007 and amendment filed on May 18, 2007.

To expedite the process of examination Examiner requests that all future correspondences in regard to overcoming prior art rejections or other issues (e.g. amendments, 35 U.S.C. 112, objections and the like) set forth by the Examiner that Applicants provide and link to the most specific page and line numbers of the disclosure where the best support is found (see 35 U.S.C. 132).

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/13/2007 has been entered. Claims 21, 50 and 79 are cancelled thus claims 1-20, 22-49, 51-78 and 80-90 are pending.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 30-49, 51-58 and 89 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth whether the invention generates a tangible result.

For a claimed invention to be statutory, the recited steps must produce a concrete and tangible result. State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02.

In the present case, independent claim 30 only recite a program per se. A computer program is statutory while being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. The computer program of claim 30 is not stored on a tangible storage medium and does not execute any action. Note the suggested execution in the preamble does not require any executing in the claim.

Hence, claim 30 taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is descriptive material per se and hence is nonstatutory.

Claims 31-49, 51-58 and 89 depend from claim 30 and are deemed to be directed to non-statutory subject matter based on the same merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 30 and 59 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains,

Art Unit: 2163

or with which it is most nearly connected, to make and/or use the invention. The feature of "first axis and second axis have different orientations" was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to claims 2-20, 22-29, 31-49, 51-58, 60-78, 80-90 depend from claims 1, 30 and 59, respectively, and are thus rejected on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20, 22-49, 51-78 and 80-90 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1, 30 and 59, the term portion is indefinite. It is not clear what the metes and bounds of portion are. The term specification is indefinite. It is not clear what the metes and bounds of specification are. Last, the term orientation is indefinite. It is not clear what the metes and bounds of orientation are. Note, the term orientation is not mentioned in the disclosure.

As to claims 2-20, 22-29, 31-49, 51-58, 60-78, 80-90 depend from claims 1, 30 and 59, respectively, and are thus rejected on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Or,

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20, 22-49, 51-78 and 80-90 are rejected under 35 U.S.C. 102(e) as being anticipated by Barg et al (U.S. Patent No. 6,707,454).

Regarding claims 1, 30 and 59, Barg discloses a method and system of forming a visual plot using a hierarchical structure of a dataset, wherein said dataset comprises a measure attribute and a dimension attribute the dimension consisting of a plurality of levels the plurality of levels forming a dimension hierarchy (fig. 11 and abstract), comprising:

(A) constructing said visual plot based on a specification, wherein a first level from said plurality of levels is represented by a first component of said visual plot and wherein a second level from said plurality of levels is represented by a second component of said visual plot (col. 5, lines 53 to col. 6, line 60);

(B) querying said dataset to retrieve data in accordance with said specification, said data including all or a portion of said dimension and all or a portion of said measure (fig. 7, item 712, *query*); and

(C) populating said visual plot (figures 4, 7 and 29) with said retrieved data in accordance with said specification (fig. 29), by associating a plurality of levels with axis (fig. 24 and col. 26, lines 9-51, see also col. 2, lines 22-25).

Regarding claim 2, said dataset is a database (abstract).

Regarding claim 3 wherein said querying said dataset to retrieve data in accordance with said specification comprises querying the database to retrieve a set of tuples in accordance with said specification (fig. 7).

(Note: tuples are records)

Regarding claim 4, said visual plot comprises a plurality of panes and said populating said visual plot with said retrieved data in accordance with said specification comprises associating all or a subset of said set of tuples with a pane in said plurality of panes (fig. 10).

Regarding claim 5, encoding a tuple in said subset of tuples in said pane as a graphic (fig. 10).

Regarding claim 6 wherein said specification is in a language based on the hierarchical structure of the dataset (col. 2, lines 15-25).

Regarding claim 7 wherein said first component and said second component are not the same and said first component and said second component are each independently selected from the group consisting of one or more rows in said visual plot, one or more columns in said visual plot, one or more layers in said visual plot, an axis of said visual plot, a graphic in said visual plot, or a level of detail of a graphic in said visual plot (fig. 29).

Regarding claim 8 wherein said first component is said plurality of rows and said second component is said plurality of columns (col. 5, lines 44-52).

Regarding claim 9 wherein each row in said plurality of rows or each column in said plurality of columns is assigned a different color or hash pattern (col. 5, lines 44-52).

Regarding claim 10 wherein said first component is said plurality of rows and said second component is said plurality of layers (fig. 29).

Regarding claim 11 wherein each row in said plurality of rows or each layer in said plurality of layers is assigned a different color or hash pattern (col. 5, lines 44-52).

Regarding claim 12, wherein said first component is said plurality of columns and said second component is said plurality of layers (col. 5, lines 44-52).

Regarding claim 13 wherein each column in said plurality of columns or each layer in said plurality of layers is assigned a different color or hash pattern (col. 5, lines 44-52).

Regarding claim 14 wherein a set of levels from said dimension are represented by said first component, said set of levels represent a portion of the dimension hierarchy of the Dimension, and said plurality of levels do not include each level in said portion of the dimension hierarchy represented by said set of levels (fig. 29).

Regarding claim 15 wherein said set of levels represent the levels month, quarter, and year and said set of levels consist of the levels month and year (spread sheet).

Regarding claim 16 wherein a set of levels from said dimension are represented by said first component, said set of levels are represented in said first component of said visual plot in an order that deviates from an order in said dimension hierarchy (col. 2, lines 15-24).

Regarding claim 17 wherein said retrieved data is represented in text form, as a bar chart, or as a scatterplot in said visual plot (fig. 7, 612 and related text).

Regarding claim 18 wherein said specification comprises an algebraic expression that includes an operand, wherein said algebraic expression represents an operation on said hierarchical structure of said dataset (col. 13, lines 48-63).

Regarding claim 19, said specification organizes said visual plot into a plurality of rows and a plurality of columns; and said specification comprises a first algebraic expression for said plurality of rows and a second algebraic expression for said plurality of columns and wherein at least one of said first algebraic expression and said second algebraic expression represents an operation on said hierarchical structure of said dataset (fig. 7 and col. 13, lines 48-63).

Regarding claim 20 wherein said specification further organizes said plurality of panes into a plurality of layers, said specification further comprises a third algebraic expression for said plurality of layers, and said third algebraic expression represents an operation on said hierarchical structure of said dataset (fig. 4 and fig. 7 and col. 13, lines 48-63).

Regarding claim 21 wherein said first component of said visual plot is a first axis of said visual plot and said second component of said visual plot is a second axis of said visual plot (fig. 24).

Regarding claim 22 wherein said first component represents a first level of said dimension hierarchy and a measure such that said measure is partitioned into a plurality of segments, each segment in said plurality of segments representing a data point in said first level; and said second component represents at least a second level of said dimension hierarchy (fig. 29 and col. 2, lines 47-54).

Regarding claim 23 wherein said dimension is time (col. 2, lines 15-24).

Regarding claim 24 wherein each data point in said first level represents a predetermined time period (col. 2, lines 15-24).

Regarding claim 25 wherein said predetermined time period is one of a year, a quarter, a month, a week, a day, an hour, a minute, or a second (col. 2, lines 15-24).

Regarding claim 26 wherein each segment in said plurality of segments is assigned a different color or a different hash pattern (col. 5, lines 44-52).

Regarding claim 27 wherein said first component represents a level of detail of a graphic, said second component is represented on a first axis, and said second axis represents a measure (fig. 24).

Regarding claim 28 wherein said graphic is partitioned into a plurality of segments in accordance with said level of detail such that each segment of said plurality of segments is assigned a different color or a different hash pattern and each segment of said plurality of segments represents a different data point in the second level of said dimension hierarchy (fig. 11 col. 5, lines 44-52).

Art Unit: 2163

Regarding claim 29 wherein said first level is year and said second component is month (col. 2, lines 15-24).

Regarding computer program and system claims 30-90 comprise same subject matter as method claims 1-29 and are therefore rejected on the same basis.

Claims 1, 30 and 59 are rejected under 35 U.S.C. 102(e) as being anticipated by Applicant Admitted Prior Art (AAPA) of the Instant Application.

Regarding claims 1, 30 and 59, AAPA discloses A method and system of forming a visual plot using a hierarchical structure of a dataset (fig. (18, year, quarter) , wherein said dataset comprises a measure attribute and a dimension attribute (fig. 18, central, year), the dimension consisting of a plurality of levels (quarter 1, quarter 2), the plurality of levels forming a dimension hierarchy (fig. 18 and page 3, lines 31-33), comprising:

(A) constructing said visual plot based on a specification, wherein a first level from said plurality of levels is represented by a first component of said visual plot and wherein a second level from said plurality of levels is represented by a second component of said visual plot (page 3, line 31 to page 4 line 4);

(B) querying said dataset to retrieve data in accordance with said specification, said data including all or a portion of said dimension and all or a portion of said measure (page 2, lines 31-34); and

(C) populating said visual plot with said retrieved data in accordance with

said specification by associating a plurality of levels with axis (page 4, lines 6-8).

(Note: AAPA admits that MS Excel Pivot Table enables visualization of multidimensional databases, and Excel is well known for its use of queries (i.e., formulas or specifications) to control and modify the contents of a spreadsheet)

Claims 1, 30 and 59 are rejected under 35 U.S.C. 102(a) as being anticipated by Stolte et al., Polaris, included in Applicant's IDS.

The applied reference has a common Inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(a) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 30 and 59 Polaris discloses a method and system for forming a visual plot using a hierarchical structure of a dataset (page 52, par. 4 and 5), wherein said dataset comprises a measure attribute and a dimension attribute (fig. 1 and page 53, 3 overview, par. 3), the dimension consisting of a plurality of levels, the plurality of levels forming a dimension hierarchy the method comprising:

(A) constructing said visual plot based on a specification, wherein a first level from said plurality of levels is represented by a first component of said visual plot and wherein a second level from said plurality of levels is represented by a second component of said visual plot

(fig. 1, *graph*);

(B) querying said dataset to retrieve data in accordance with said specification, said data including all or a portion of said dimension and all or a portion of said measure (page 60, section 6, *Generating Database Queries*); and,

(C) populating said visual plot with said retrieved data in accordance with said specification by associating a plurality of levels with axis (figures 1-7 and page 63, *Summery*).

Response to Arguments

Applicant's arguments filed May 18, 2007 have been fully considered but they are not persuasive. The arguments and responses are listed below.

Applicant argues on page 14 that claim 30 rejected under 35 U.S.C. 101 comprises at least three executable actions.

Examiner disagrees. Claim 30 is a program claim which comprises instructions for performing tasks but does not include an executable action that is executed. As such, the rejection stands.

Applicant argues on page 15 that prior art Barg does not teach first and second levels of a dimension can appear on two different layers or axes.

Examiner disagrees. Applicant claims that dimensions of data may be displayed on a visual plot including different axis or layers. Barg also discloses that multiple dimensions are

Art Unit: 2163

used to create a row or column axis (col. 26, lines 15-17), wherein the multiple dimensions are selected from rows and columns (col. 26, lines 34-37).

Applicant argues on page 16 that AAPA does not teach two levels from a single dimension to appear on two different axes or layers.

Examiner disagrees. AAPA teaches on page 4, lines 6-9 (Instant Application) that data of different dimensions can be copied on rows. The claimed language includes that the axis have “different orientations”, this phrase however is not supported by the disclosure and is consequently indefinite. If Applicant believes the claimed subject matter is novel over the AAPA as described in the disclosure Examiner suggests elaborating on the claimed populating feature to distinguish it clearly from the prior art.

Applicant argues on page 16 that Polaris is not a valid rejection because it does not teach hierarchical data.

Examiner disagrees. Polaris admits it cannot handle all the hierarchical structure of many multi dimensional data, however, multidimensional data is taught and well known.

No other issues were raised.

With respect to all the pending claims 1-20, 22-49, 51-78 and 80-90, Examiner respectfully traverses Applicants assertion based on the discussion and rejection cited above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc R. Filipczyk whose telephone number is (571) 272-4019. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MF
August 10, 2007



**WILSON LEE
PRIMARY EXAMINER**